

July 20, 2023

Docket No.: 52-026

ND-23-0608  
10 CFR 52.99(c)(1)U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Unit 4  
ITAAC Closure Notification on Completion of ITAAC 2.1.03.03 [Index Number 72]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.1.03.03 [Index Number 72]. This ITAAC verifies that the Reactor System (RXS) components listed in the Combined License (COL) Appendix C, Table 2.1.3-1 that are identified as American Society of Mechanical Engineers (ASME) Code Section III were designed and constructed in accordance with applicable requirements. The closure process for this ITAAC is based on the guidance described in Nuclear Energy Institute (NEI) 08-01, *Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52*, which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,

Jamie M. Coleman  
Regulatory Affairs Director Vogtle 3 & 4Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4  
Completion of ITAAC 2.1.03.03 [Index Number 72]

JMC/TL/sfr

U.S. Nuclear Regulatory Commission

ND-23-0608

Page 2 of 2

cc:     Regional Administrator, Region II  
          Director, Office of Nuclear Reactor Regulation (NRR)  
          Director, Vogtle Project Office NRR  
          Senior Resident Inspector – Vogtle 3 & 4

**Southern Nuclear Operating Company  
ND-23-0608  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4  
Completion of ITAAC 2.1.03.03 [Index Number 72]**

### **ITAAC Statement**

#### **Design Commitment:**

3. The components identified in Table 2.1.3-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.
4. Pressure boundary welds in components identified in Table 2.1.3-1 as ASME Code Section III meet ASME Code Section III requirements.
5. The pressure boundary components (RV, CRDMs, and incore instrument QuickLoc assemblies) identified in Table 2.1.3-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.

#### **Inspections, Tests, Analyses:**

Inspection will be conducted of the as-built components as documented in the ASME design reports.

Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.

A hydrostatic test will be performed on the components of the RXS required by the ASME Code Section III to be hydrostatically tested.

#### **Acceptance Criteria:**

The ASME Code Section III design reports exist for the as-built components identified in Table 2.1.3-1 as ASME Code Section III.

A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

A report exists and concludes that the results of the hydrostatic test of the pressure boundary components (RV, CRDMs, and incore instrument QuickLoc assemblies) conform with the requirements of the ASME Code Section III.

### **ITAAC Determination Basis**

This ITAAC requires inspections, tests, and analyses be performed and documented to ensure the Reactor System (RXS) components listed in the Combined License (COL) Appendix C, Table 2.1.3-1 (Attachment A) that are identified as American Society of Mechanical Engineers (ASME) Code Section III are designed and constructed in accordance with applicable requirements.

#### **3. The ASME Code Section III design reports exist for the as-built components identified in Table 2.1.3-1 as ASME Code Section III.**

Each component listed in Table 2.1.3-1 as ASME Code Section III was fabricated in accordance with the VEGP Updated Final Safety Analysis Report (UFSAR) and the ASME Code Section III requirements. The ASME Code Section III certified Design Reports for these components exist and document that the as-built components conform to the approved design details. The ASME Section III Design Report for each component is documented in the component's completed

ASME Section III Code Data Report. The individual component ASME Section III Code Data Reports are documented on the ASME Section III N-5 Code Data Report(s) for the applicable piping system (Reference 1).

The as-built components listed in Table 2.1.3-1 as ASME Code Section III, were subjected to a reconciliation process (Reference 2), which verifies that the as-built components were analyzed for applicable loads (e.g. stress reports) and for compliance with all design specification and Code provisions. Design reconciliation of the as-built systems, including installed components, validates that construction completion, including field changes and any nonconforming condition dispositions, are consistent with and bounded by the approved design. All applicable fabrication, installation and testing records, as well as, those for the related Quality Assurance (QA) verification/inspection activities, which confirm adequate construction in compliance with the ASME Code Section III and design provisions, are referenced in the N-5 data report and/or its sub-tier references.

The applicable ASME Section III N-5 Code Data Report(s), which include the location of the certified Design Reports for all the components listed in Table 2.1.3-1 (Attachment A) as ASME Code Section III, exist and conclude that these installed components are designed and constructed (including their installation within the applicable as-built piping system) in accordance with the ASME Code (1998 Edition, 2000 Addenda), Section III requirements as described in subsection 5.2.1 of the UFSAR (Reference 3). The N-5 Code Data Reports for the components listed in the Table 2.1.3-1 are identified in Attachment A.

4. A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

Inspections were performed in accordance with ASME Code Section III (1998 Edition, 2000 Addenda) to demonstrate that as-built pressure boundary welds in components identified in Table 2.1.3-1 as ASME Code Section III meet ASME Code Section III requirements (i.e., no unacceptable indications).

The applicable non-destructive examinations (including liquid penetrant, magnetic particle, radiographic, and ultrasonic testing, as required by ASME Code Section III) of the components' pressure boundary welds were documented in the Non-destructive Examination Report(s), which support completion of the respective ASME Section III N-5 Code Data Report(s) certified by the Authorized Nuclear Inspector, as listed in Attachment A.

Per ASME Code Section III, Subarticle NCA-8300, "Code Symbol Stamps," the N-5 Code Data Report(s) (Reference 1) documents satisfactory completion of the required examination and testing of the item, which includes non-destructive examinations of pressure boundary welds. Satisfactory completion of the non-destructive examination of pressure boundary welds ensures that the pressure boundary welds in components identified in Table 2.1.3-1 as ASME Code Section III met ASME Code Section III requirements.

5. A report exists and concludes that the results of the hydrostatic test of the pressure boundary components (RV, CRDMs, and incore instrument QuickLoc assemblies) conform with the requirements of the ASME Code Section III.

A hydrostatic test was performed by the vendor to demonstrate that the components (RV, CRDMs, and incore instrument QuickLoc assemblies) identified in Table 2.1.3-1 (Attachment A) as ASME Code Section III retain their pressure boundary integrity at their design pressure. A

hydrostatic test verifies that there were no leaks at welds and that the pressure boundary integrity was retained at its design pressure. The completion of the N-5 Data Reports is governed by Reference 2.

This portion of the ITAAC was complete once each component identified in Table 2.1.3-1 has their individual Code Symbol N-Stamp and corresponding Code Data Report (Reference 1) completed, and the components are installed into the respective Code Symbol N-Stamped system and documented on the corresponding N-5 Code Data Report(s) (Reference 1). The hydrostatic testing results of the component's pressure boundary were documented in the Hydrostatic Testing Report(s) within the supporting component's data package, which support completion of the respective Code Stamping and Code Data Report(s).

The completion of stamping the individual components along with the corresponding ASME Code Data Reports (certified by the Authorized Nuclear Inspector) ensures that the components are constructed in accordance with the Design Specifications and the ASME Code Section III and that the satisfactory completion of the hydrostatic pressure testing of each component identified in Table 2.1.3-1 as ASME Code Section III were documented in the Hydrostatic Testing Report(s) within the supporting data packages and met ASME Code Section III requirements.

Reference 1 provides the evidence that the ITAAC Acceptance Criteria requirements are met:

- The ASME Code Section III design reports exist for the as-built components identified in Table 2.1.3-1 as ASME Code Section III;
- A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary weld; and
- A report exists and concludes that the results of the hydrostatic test of the pressure boundary components (RV, CRDMs, and incore instrument QuickLoc assemblies) conform with the requirements of the ASME Code Section III.

This ITAAC also verified that a Preservice Inspection (PSI) for the applicable portions of the Reactor System (RXS) identified in Tables 2.1.3-1 have been completed (Reference 5), in accordance with the Unit 4 PSI program plan (Reference 6), and that the results of the PSI conforms with the requirements of the ASME Boiler & Pressure Vessel (B&PV) Code.

Examinations are conducted for each system in accordance with Section XI of the ASME B&PV Code, Subsections IWB, IWC, and IWD to satisfy the requirements for PSI.

References 1 and 4 are available for NRC inspection as part of the Unit 4 ITAAC 2.1.03.03 Completion Package (Reference 7).

### **ITAAC Finding Review**

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review, which included now consolidated ITAAC Indexes 73 and 74, found no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.1.03.03 (Reference 7) and is available for NRC review.

**ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.1.03.03 was performed for VEGP Unit 4 and that the prescribed acceptance criteria were met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

**References (available for NRC inspection)**

1. SV4-RCS-MUR-001, Rev. 0, "AP1000 Vogtle Unit 4 ASME Section III System Code Data Report for the Reactor Coolant System (RCS)"
2. APP-GW-GAP-139, Rev. 9, "Westinghouse/Stone & Webster ASME Code Data Report and As-Built Documentation Interface Procedure"
3. VEGP 3&4 Updated Final Safety Analysis Report, Rev. 12, Subsection 5.2.1, Compliance with Codes and Code Cases
4. SV4-RCS-S3R-001, Rev. 0, "Vogtle Unit 4 Reactor Coolant System (RCS) ASME Section III As-Built Piping System Design Report"
5. APE-10-00028, "Completion of Preservice Inspection for the Vogtle Unit 4 RCS and RXS Class 1, 2, and 3 Portions of Systems"
6. SV4-GW-GEI-100, Rev. 1, "AP1000 Preservice Inspection Program Plan for Vogtle Unit 4"
7. 2.1.03.03-U4-CP-Rev0, ITAAC Completion Package

**Attachment A**

SYSTEM: Reactor System (RXS)

| <b>Equipment Name *</b>                             | <b>Tag No. *</b>   | <b>ASME Code Section III Classification*</b> | <b>ASME Section III As-Built Piping System Design Report</b> | <b>N-5 Report</b> |
|---|--|--|--|-------------------|
| RV  | RXS-MV-01  | Yes  | SV4-RCS-S3R-001  | SV4-RCS-MUR-001   |
| Reactor Upper Internals Assembly                    | RXS-MI-01  | Yes  | SV4-RCS-S3R-001  | SV4-RCS-MUR-001   |
| Reactor Lower Internals Assembly                    | RXS-MI-02  | Yes  | SV4-RCS-S3R-001  | SV4-RCS-MUR-001   |
| Control Rod Drive Mechanisms (CRDMs) (69 Locations) | RXS-MV-11B06/11B08/11B10/<br>11C05/11C07/11C09/11C11/<br>11D04/11D06/11D08/11D10/<br>11D12/11E03/11E05/11E07/<br>11E09/11E11/11E13/11F02/<br>11F04/11F06/11F08/11F10/<br>11F12/11F14/11G03/11G05/<br>11G07/11G09/11G11/11G13/<br>11H02/11H04/11H06/11H08/<br>11H10/11H12/11H14/11J03/<br>11J05/11J07/11J09/11J11/<br>11J13/11K02/11K04/11K06/<br>11K08/11K10/11K12/11K14/<br>11L03/11L05/11L07/11L09/<br>11L11/11L13/11M04/11M06/<br>11M08/11M10/11M12/11N05/<br>11N07/11N09/11N11/11P06/<br>11P08/11P10 | Yes  | SV4-RCS-S3R-001  | SV4-RCS-MUR-001   |
| Incore Instrument QuickLoc Assemblies (8 Locations) | RXS-MY-Y11 through Y18   | Yes  | SV4-RCS-S3R-001  | SV4-RCS-MUR-001   |

\*Excerpt from COL Appendix C Table 2.1.3-1